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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,133	10/23/2003	Charles A. Miller	FACT-01000US0	1801

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EXAMINER
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KOBER, RUSSELL MARC

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/693,133

Applicant(s)

MILLER, CHARLES A. 

Examiner

Russell M. Kobert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3 and 7-10 is/are allowed.
- 6) ☒ Claim(s) 1 and 24 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 11-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0605.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. Applicant's election without traverse of Invention I, claims 1-13 and 24, in the reply filed on 22 September 2005 is acknowledged.

2. Claims 14-18 and 20-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 22 September 2005. Applicant's cancellation of claims 14-18 and 20-23 is hereby acknowledged.

3. Applicant's arguments filed 9 June 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that the variable delay isolation buffer has a control input "for selectively varying a delay caused by the variable delay isolation buffer in a signal traveling from the signal input to the signal output," as now stated in claim 1, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Furthermore, Miller suggests at column 7, line 67 that the "Z signal delay" is calibrated; it is a well-known and established practice that calibration requires adjustment by selectively varying. Moreover, Miller discusses the use of a computer

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(30) to calibrate the timing of the DRIVE, Z and COMPARE signals produced by control and timing circuit 46 (column 6, lines 34-37).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Miller (6622103).

Miller anticipates (Figures 3 and 4) an apparatus comprising: a variable delay isolation buffer (40) having a signal input (DRIVE), a signal output (portion connected to node 34), and a variable delay control input (Z) *for* selectively varying a delay caused by the variable delay isolation buffer in a signal traveling from the signal input to the signal output; and a delay control circuit (46) having an output (Z) providing the variable delay control input of the variable delay isolation buffer, the delay control circuit setting a delay control voltage potential at its output to control delay through the variable delay isolation buffer to substantially match delay through a time delay reference (column 6, line 30 - column 7, line 67); as recited in claim 1.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (6622103) as applied to claim 1 above, and further in view of Kwon et al (5070297).

Although Miller does not specifically show the variable delay isolation buffer and the delay control circuit are provided on a probe card, wherein the output of each variable delay isolation buffer is connected to a separate probe on the probe card, it would have been obvious to one having ordinary skill in art at the time the invention was made to have done so because Kwon et al teach that it is desirable to increase integrated circuit testing speed (delay reduction) by reducing as much as possible the physical distance between test circuits and integrated circuits on a wafer under test by placing active test circuitry on a probe card itself (col 3, ln 9-58).

8. The following is a statement of reasons for the indication of allowable subject matter:

Claims 4-6 and 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The additional limitation of driver buffers each having a signal input connected to the output of the variable delay isolation buffer, and a power supply input connected to receive a system voltage as further described in claim 4 has not been found.

The additional limitation of the variable delay isolation buffer comprises a differential amplifier with a variable current sink providing the variable delay control input as further described in claim 6 has not been found.

The additional limitation of the variable delay isolation buffer comprises a first variable delay isolation buffer, the apparatus further comprising: additional variable delay isolation buffers each having a signal input connected in common with the first variable delay isolation buffer, a variable delay control input connected to the output of the delay control circuit, and having an output as further described in claim 12 has not been found.

It is further noted that the examiner's reasons are understood to be predicated upon consideration of each of the claims as a whole, and not upon any specific elements of the claims.

9. Claims 2, 3 and 7-10 are now in allowable status having been amended to be in independent form containing all the limitations of base claim 1 as per the reasons of record mailed on 7 March 2005.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963.

The Examiner's Supervisor, Nestor R. Ramirez, can be reached at (571) 272-2034.

For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert  
Patent Examiner  
Group Art Unit 2829  
December 10, 2005



VINH NGUYEN  
PRIMARY EXAMINER  
A.U. 2829  
12/12/05